

A Polynucleotide Motor, a Motor System, their Preparation and Uses

A polynucleotide motor is disclosed, comprising an enzyme capable of binding to a nucleic acid sequence, which enzyme is also capable of translocating the nucleic acid sequence without causing cleavage thereof. The motor may be associated with a substance bound to the nucleic acid sequence so that the bound substance, such as a magnetic bead, biotin, streptavidin, a scintillant or the like, can itself be translocated, relative to the region of binding of the enzyme, during translocation. Such a system has applications in the screening or testing for a pre-determined biological, chemical or physical activity; for example, in screening for new pharmacologically-effective ligands.